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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

DINH, TAN X

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/688,753	REASONER ET AL.	
	Examiner	Art Unit	
	TAN X. DINH	2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

1) This application is a Continuation Application of S/N 09/814,236 and now is US 6,693,858.

2) The specification is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

a) The Abstract recites " Moving the picker assembly after a loading operation only if the detected signal indicates the data cartridge is engaged in the picker assembly. The method may further comprise moving the picker assembly after an unloading operation only if the detected signal indicates the data cartridge is disengaged from the picker assembly " which was not exist in the original disclosure in the parent application.

b) The " SUMMARY OF THE INVENTION " recites " A method may comprise detecting a signal reflected from a data cartridge in a picker assembly, and moving the picker assembly after a loading operation only if the detected signal indicates the data cartridge is engaged in the picker assembly. The method may further comprise moving the picker assembly after an unloading operation only if the detected signal indicates the data cartridge is disengaged from the

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picker assembly " which was not exist in the original disclosure in the parent application.

Applicant is required to cancel the new matter in the reply to this Office Action.

3) Claims 11 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The original disclosure fails to specify that " moving the picker assembly after an unloading operation only if the detected signal indicates the data cartridge is disengaged in the picker assembly " as claimed in claim 11.

The original disclosure fails to specify that " signal detector indicates during an unloading operation that the data cartridge is disengaged from picker assembly before picker assembly can be moved " as claimed in claim 16. These features are considered to be new matter.

4) The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed Terminal Disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A Terminal Disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5) Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5,7,11-14 of U.S. Patent No. 6,693,858. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claims 1,4-9 recite the same features as in claims 1-5,7,11-14 of U.S. Patent No. 6,693,858, such as a data cartridge detection system/method, including a cartridge engaging assembly for receiving a data cartridge therein, a signal emitter operatively associated with cartridge engaging assembly, signal emitter producing a signal that is reflected by the presence of the data cartridge within cartridge engaging assembly, a signal detector operatively associated

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with cartridge engaging assembly, the signal detector being responsive to the reflected signal produced by signal emitter and indicating that the data cartridge is present in cartridge engaging assembly, with slightly different in phrase and words. However, they contains the same elements and perform the same functions with each other. To use either one of them would have been obvious to someone within the level of skill in the art.

As to claims 2 and 3, it would have been obvious to emitting the signal at start up or at power up for detecting the cartridge assembly since at start up or power up the changer it is necessary to know whether there is already a data cartridge in the cartridge engaging assembly or not before perform further operations.

Claims 10-20 recite the same features as in claims 1-5,7,11-14 of U.S. Patent No. 6,693,858, except to show the step of moving the picker assembly (cartridge engagement assembly) after loading when the data cartridge is engaged in the picker assembly. However, in any auto-changer or library storage system, the system must detect the present or absent of the data cartridge in the picker assembly during loading process before moving the picker assembly from one location to another location for further operation. Therefore, to move picker

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assembly, after loading and detecting the data cartridge is engaged in the picker assembly, as claimed is deemed obvious to someone within the level of skill in the art.

The features of determining the color of data cartridge and identifying data cartridge based on detected the color are recited in the independent claims 7 and 8 of U.S. Patent No. 6,693,858.

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7) This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the

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applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8) Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over GEIGER et al (5,099,465).

GEIGER et al discloses a method for detecting a data cartridge as claimed in claims 1 and 7, comprising the step of emitting a signal from a signal emitter on the cartridge engaging assembly into a chamber (Fig.1, light source 8 emits a signal 9 to disk 5 of magazine 4), detecting at least a portion of emitted signal when emitted signal is reflected from the medium (Fig.1, photoelectric detector 10 detects the reflected beam 9b reflects from CD 5), and generating output to indicate whether medium is present in cartridge engaging assembly based on detected signal (column 2, line 58 to column 3, line 5. In this case, when photo-detector 10 receives the reflected light 9b which indicates the present of compact disc 5 in cartridge engagement assembly 4, and when photo-detector 10 not receive the reflected light which indicates the compact disc 5 is not present in cartridge engagement assembly 4), except that (i) data medium is compact disc (CD without protective jacket) rather than a data cartridge (CD with protective jacket), and (ii) the detecting is perform to detect the present or absent of data medium on data

storage magazine *rather than* on picker assembly. It would have been obvious to someone within the level of skill in the art at the time of the invention was made to modify the detect method of in GEIGER et al's for detecting the present/absent of data cartridge on picker assembly as claimed, the rationale is as follows:

a) The detecting method of GEIGER et al's is based on the light reflected from an element (in this case is compact disc) and generates signal indicates that element is present or absent, when the photo-detector receives a reflecting light from an element, the photo-detector generates a signal indicates the element is present and when the photo-detector is not receives a reflecting light from an element, the photo-detector generates a signal indicates the element is absent. The compact disc is an optical element and capable of reflecting a light which is the same as data cartridge. In another words, the detecting method will perform the same functions with either one of them, and

b) The function of the light detecting system of GEIGER et al and the invention claims are based on the same concept with the same purpose, which is detected the reflected light from data medium and generates an output signal indicates the present or absent of the medium before moving the data medium to a read/write unit (loading)

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or ejecting the data medium (unloading). In another words, the light detecting unit could be arranged at any desirable positions in the storage device (changer) which capable of performing the detection functions. Therefore, one of ordinary skill in the art at the time of the invention was made would have been motivated to rearrange the light detecting unit in GEIGER et al's for detecting the present or absent of data cartridge on the picker assembly as claimed.

As to claims 2 and 3, it would have been obvious to emit the signal at start up or at power up in GEIGER et al's CD changer since the emitting signal could be modified to activate at any desirable time during operation of the changer.

As to claim 4, the detecting method of GEIGER et al inherent focusing the light (Fig.1, focusing light 9 toward compact disc 5 and reflected light 9b) during detecting process in order to get the signal accuracy.

As to claim 5, it would have been obvious to modify the light detecting of GEIGER et al's by including a color-deciphering component (e.g., suitable wavelength detection and measurement hardware and the related program code, where necessary) for detecting the color of data cartridge since color-deciphering component is old and widely used in the art for determining the

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characteristic of a storage medium (applicant did not invents this color-deciphering component, just applies this well known color-deciphering component in the light detector for determining the color of data cartridge).

System claim 6 is drawn to the detecting system corresponding to the method of using same as claimed in claim 1. Therefore, claim 6 is rejected for the same reasons of obviousness as used above.

As to claims 8 and 9, GEIGER et al shows a light source (Fig.1, light source 8) and light detector (Fig.1, photo-detector 10).

Claims 10 and 15 add to claim 1 the feature of moving the picker assembly after the detecting the present of data cartridge. It would have been obvious to someone within the level of skill in the art at the time of the invention was made to moving the picker assembly in GEIGER et al's storage system after detecting the present of data cartridge in the picker assembly as claimed, the rationale is as follows:

Media storage systems are well known in the art and are commonly used to store data cartridges at known locations and to retrieve the desired data cartridges so that data may be written to and/or read from the data cartridges, such media storage systems are often referred to as autochangers or library storage systems. Autochangers

or media storage systems of the type described above are usually connected to a host computer system which may access or store data on the data cartridges. In use, it is often necessary to know whether a data cartridge is present in the cartridge engaging assembly, so that, the host computer can perform further operations (the further operations depend on the present or absent of data cartridge in picker assembly). Therefore, one of ordinary skill in the art at the time of the invention was made would move the picker assembly in GEIGER et al after detecting the present of data cartridge in the picker assembly for performing other operations.

As to claims 11 and 16, it would have been obvious to move the picker assembly after an unloading operation if the data cartridge is disengaged from the picker assembly as claimed since picker assembly could be moved during loading (present of data cartridge) and unloading (absent of data cartridge) for performing other operations on the data storage device.

Claims 12-14 and 18-20 are rejected with the same reasons set forth in claim 5 above.

As to claim 17 GEIGER et al shows a processor for determining the data cartridge is engaged in picker assembly (Fig.1, controller 13).

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9) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form PTO-892 attached herein).

Applicant is reminded that in amending in response to a rejection of claims (if the rejection involves with any applicable arts), the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must also show how the amendments avoid such references and objections. See 37 CFR 51.111(c).

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner TAN X. DINH whose telephone number is (571)272-7586. The examiner can normally be reached on Monday - Friday from 8:00AM to 5:00PM.


The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more

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information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TAN DINH
PRIMARY EXAMINER
May 26, 2005